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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,709	11/14/2003	Mingming Fang	28569/38510A	2098
4743	7590	08/02/2007		
MARSHALL, GERSTEIN & BORUN LLP 233 S. WACKER DRIVE, SUITE 6300 SEARS TOWER CHICAGO, IL 60606			EXAMINER CHEN, KIN CHAN	
			ART UNIT 1765	PAPER NUMBER
			MAIL DATE 08/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/713,709

Applicant(s)

FANG ET AL.

Examiner

Kin-Chan Chen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 042004.022005.102005
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 14-20, Group II, with traverse (July 2, 2007) is acknowledged. The traversal is on the ground(s) that the elected method claims includes all the features of the composition claims 1-13, here would be no serious burden on the examiner. This is not found persuasive because the composition can be used in a materially different process of using that product (composition) such as non-polishing process for wet etching or chamfering. The composition claim is what it is not what it does. And because these inventions have acquired a separate status in the art as shown by their different classification. Besides it involves different search and would impose a serious administrative burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The disclosure is objected to because of the following informalities:

Domestic priority and provisional need to show at first sentence of the specification (after the title). Updating the status of U.S. Application No. 10/677,433 on page 1 of the specification is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

3. Claims 14-20 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-5, 7, 9, and 10 of U.S.

Patent No. US 7,087,529. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1 of U.S. Patent No. US 7,087,529 discloses polishing a surface comprising smectite clay abrasives which still contains some sodium therefore reads on the limitations of claim 1 of the instant application.

Claims 3-5, 7, 9, and 10 of U.S. Patent No. US 7,087,529 provide the same additional limitations, respectively, as claims 15-20 of the instant application.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "ion-exchanged" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mathur et al. (US 20040216388) in view of Lorah et al. (US 2003/0060555).

In a method for planarizing or polishing a surface, Mathur discloses a method comprising contacting a surface with a composition comprising (a) a liquid carrier, (b) abrasive solids; and (c) smectite clay particles. The weight % of clay particles overlaps the claimed range. The range of particles sizes overlaps the claimed range, see [0015] [0040][0045].[0061].

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Unlike the claimed invention, Mathur does not explicitly mention that smectite clay particles may contain sodium. In a method for polishing a surface, Lorah [0023][0024][0062] teaches that clays typically have at least one naturally occurring cation such as sodium. Hence, it would have been obvious to one with ordinary skill in the art that the smectite clay may contain sodium as taught by Lorah or may use the sodium-containing smectite as taught by Lorah in the process of Mathur because Lorah discloses that it is useful for polishing a surface.

As to dependent claim 15, see Mathur [0015].

As to dependent claims 16 and 17, Mathur discloses the claimed chemical accelerators, see [0031].

As to dependent claims 18-20, see Mathur [0061].

7. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le Loarer et al. (US 5,026,421) in view of Chou et al. (US 2002/0086908).

In a method for planarizing or polishing a surface, Le Loarer discloses a method comprising contacting a surface with a composition comprising (a) a liquid carrier, (b) abrasive solids; and (c) smectite clay particles. The weight % of clay particles within the claimed range, see col.10 and examples.

Unlike the claimed invention, Le Loarer does not explicitly mention that smectite clay particles may contain sodium. In a method for polishing a surface, Chou [0049][0066][0079] [113] teaches that clays typically have at least one naturally occurring cation such as sodium and particle size range may be from 0.05 to 1 um.

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Hence, it would have been obvious to one with ordinary skill in the art that the smectite clay may contain sodium as taught by Chou or may use the sodium-containing smectite as taught by Chou in the process of Le Loarer because Chou discloses that it is useful for polishing a surface.

As to dependent claim 15, see Le Loarer, col. 1, lines 12-16.

As to dependent claims 18-20, Chou teaches the claimed particle sizes, see [0066].


The above-cited claims differ from the combined Le Loarer and Chou by specifying well-known features (such as using a chemical accelerator in claims 16 and 17) to the art of polishing composition and process, the examiner takes official notice. It is the examiner's position that a person having ordinary skill in the art at the time of the claimed invention would have found it obvious to incorporate a chemical accelerator to same in order to improve efficiency of polishing with a reasonable expectation of success.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kin-Chan Chen whose telephone number is (571) 272-1461. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nadine Norton can be reached on (571) 272-1465. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

August 1, 2007



Kin-Chan Chen
Primary Examiner
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